

ABSTRACT OF THE DISCLOSURE

Closed apparatus and processes by which carbon feedstock, is composed of a mixture of non-coking coal fines and another carbonaceous material, such as waste coke fines are disclosed. The coal and coke fines are mixed together and may be formed into solid pieces. The mixture alone or as solid pieces is fired through pyrolyzation into solid pieces of coke, with solid and gaseous by-products of pyrolyzation being recycled for use within the coke-producing closed system, thereby reducing or eliminating release of undesirable substances to the environment. A char-forming binder may or may not be added to the carbon mixture prior to pyrolyzation.